form. In this graveyard my father's ancestors are laid at rest. At "Klagstorp" I visited one of my school teachers, and together we went to the churchyard, and on the monument and evergreens collected 10 plain and 15 banded *H. hortensis*. This was my last collecting; it was really too late in the year to accomplish much. On Nov. 7th I bid my friends in Ostra Torp farewell and went to Trelleborg and then to Malmö, my last stop in Sweden.

November 10 to 13 was spent in Copenhagen visiting the museums. I met Dr. Theodor Mortensen. He said the fauna on the east coast of Denmark was poor, owing to the great amount of fresh water from the Baltic; he also told me about his expedition to Kei-Öarna, where he made a large collection. Magister of Science R. Spärck showed me the collection of Denmark Mollusca, and kindly gave me some specimens from the deep water of the Baltic and from Iceland and Greenland. Leaving Copenhagen on Nov. 14th, I stopped in London on the 16th and had a glimpse of the British Museum. Arriving in New York on the 23rd, I spent the next day in the American Museum of Natural History, the 26th at the Boston Society of Natural History, and was glad to be so near home again after ten busy weeks abroad.

POLYGYRA APPRESSA LINGUIFERA AND SANCTA GEORGIENSIS

BY H. A. PILSBRY AND E. G. VANATTA

An examination of the history of the Bermudan form of *Polygyra appressa* called *Helix sancta Georgiensis* led to the investigation of *Helix linguifera* of Férussac and Lamarck. This name has long rested as a synonym of *appressa* Say.

The name *H. linguifera* was first listed by Férussac in 1821, without a description, but with the locality "Les environs de Nogeville, état de Tenessé." This is evidently Knoxville. Two years later, Férussac published three figures. Meantime Lamarck had published a description giving the same locality. Férussac's figures and Lamarck's description, so far as it goes, agree very well with shells collected by one

of us in 1899 at Knoxville, on the south side of the river. These specimens had been referred to *P. appressa sculptior* Chadw. They are not typical of that subspecies as described from Scott Co., Virginia, the periphery being more distinctly angular in front, and the striation a little stronger and less close. Both of these characters are seen in Férussac's figures. The granular sculpture, however, is similar to *sculptior*. We doubt whether there is sufficient difference to call for two subspecies. In this view, the subspecies will be called POLYGYRA APPRESSA LINGUIFERA (Lamarck), with the following synonymy:

Helix linguifera Férussac, Tableaux Syst. de la Famille des Limaçons, 1821, p. 33, no. 95. Les environs de Nogeville, état de Tenessé. Nude name.

Helix linguifera Lamarck, Anim. sans Vert. VI, pt. 2, 1922, p. 90. Nogeville, état de Ténessé.

Helix linguifera Fér., Hist. Nat. des Moll., pl. 49A, fig. 3 (1823).

[*Polygyra appressa*] *sculptior* Chadwick, Nautilus XIII, Sept. 1899, p. 54. Scott Co., Virginia.

Helix sancta Georgiensis Temple Prime, The Bermuda Pocket Almanac, 1853, p. 55. Bermuda. Nude name.

Helix sancta Georgiensis W. G. Lane, Five Essays, etc., The Spiral Snails of Bermuda (no date, but about 1892), p. 2. Nude name.

Polygyra appressa, with the synonym *Helix sancta georgiensis*, Verrill, Trans. Conn. Acad. Sci. XI, 1902, p. 732, text figure 75 *d, e, f* on p. 730.

The Bermudan form cannot be said to be quite *linguifera* or *sculptior*. It has their characteristic granulation, but is slightly heavier in shell and lip, and in the average smaller than either. Strictly speaking, both *sculptior* and *sanctageorgiensis* have their own slight but recognizable racial characters; but they appear to be subvarieties of *linguifera*. All of the Bermudan "*appressa*" we have seen, many specimens from several collectors are of the *sanctageorgiensis* form.

Typical Knoxville *P. a. linguifera* are 16 to 17 mm. diameter. The type lot of form *sculptior* measure 15 to 18 mm. The form *sanctageorgiensis* measures 12 to 15.2 mm. diameter.

Though the name *H. sancta Georgiensis* was used as early

as 1853, it was first defined in 1902 by Verrill's figures. The prior notices gave no clue to its characters beyond the association with *appressa* and the locality Bermuda.

THE AFFINITIES OF BALEA AFRICANA MELVILL AND PONSONBY.

BY H. A. PILSBRY

In the course of an attempt to estimate the relations of the South African fauna to other divisions of the Ethiopian Region I had occasion to examine *Balea africana*.[1] It has little in common with the European genus *Balea*, being much more like the Japanese *Reinia*[2] in shape, small number of whorls and texture; but it differs by the further reduction of apertural armature. Just where the African species belongs in the system of Clausiliidæ remains uncertain. The shell is so much simplified that recourse must be had to the soft anatomy; but it is certainly not related to *Balea*.

Austrobalea, new genus.

Shell shortly Clausilia-shaped, of few (6-7) whorls. Aperture toothless, with slightly expanded, incomplete peristome. There is a well-developed, wholly immersed subcolumellar lamella within the dorsal side, but no other lamellæ or plicæ. No clausilium.

Type *Balea africana* M. & P. Specimens examined from Karkloof, Natal, collected by H. C. Burnup.

LAND SHELLS OF ADMIRAL'S CAVE, BERMUDA.

BY E. G. VANATTA

The following species were picked from shell-dirt collected by Mr. Hiram C. Hoyt in 1922. Mr. Arthur Haycock writes: "Admiral's Cave has an opening in the rock in the roof of the cave large enough to put your hand through. It is imme-

[1] Melvill and Ponsonby, Ann. Mag. N. H. IV, 1899, p. 198.

[2] See Pilsbry, Proc. A. N. S. Phila. 1901, p. 471.